Name:

at1110paper_practice_test (v40)

1. Expand the following expression into standard form.

$$(9x - 8)(5x + 6)$$

$45x^2 + 54x - 40x - 48$

$45x^2 + 14x - 48$

2. Solve the equation.

$$(6x + 7)(9x - 4) = 0$$

$x = \frac{-7}{6}$ $x = \frac{4}{9}$

3. Expand the following expression into standard form.

$$(7x + 2)(7x - 2)$$

$49x^2 - 14x + 14x - 4$

$49x^2 - 4$

4. Expand the following expression into standard form.

$$(9x - 7)^2$$

$81x^2 - 63x - 63x + 49$

$81x^2 - 126x + 49$

5. Factor the expression.

$$x^2 + 15x + 56$$

$$(x + 7)(x + 8)$$

6. Factor the expression.

$$16x^2 - 25$$

$$(4x + 5)(4x - 5)$$

7. Solve the equation with factoring by grouping.

$$8x^2 + 6x + 20x + 15 \;=\; 0$$

$$(2x + 5)(4x + 3) = 0$$

$$x = \frac{-5}{2} \qquad x = \frac{-3}{4}$$

8. Solve the equation.

$$8x^2 - 18x - 7 \;=\; 5x^2 - 4x - 2$$

$$3x^2 - 14x - 5 = 0$$

$$(3x + 1)(x - 5) = 0$$

$$x = \frac{-1}{3} \qquad x = 5$$